Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

| Petition of |) | |
|-------------------------------------|-------------|----------------------|
| Iridium Communications, Inc. |))) | WT Docket No. 19-280 |
| For Waiver to Permit Use of Iridium |) | |
| Service to Meet GMDSS Requirements |) | |

REPLY COMMENTS OF LIGADO NETWORKS LLC

Ligado Networks LLC ("Ligado") hereby submits these reply comments on the petition for waiver ("Petition") filed by Iridium Communications, Inc. in this proceeding. Ligado holds licenses and authorizations to operate in the L-band at 1626.5-1660.5, immediately adjoining spectrum at 1618.725-1626.5 MHz used by Iridium for its current services and planned to be used for a Global Maritime Distress & Safety System (GMDSS) service. Ligado supports the goal of improving and modernizing Part 80 rules to recognize Iridium as a new provider of safe and reliable GMDSS service. Given the proximity of Iridium's spectrum to other services,

¹ Public Notice, Wireless Telecommunications Bureau Seeks Comment on Iridium Communications Inc. Petition for Waiver to Permit Use of Iridium Service to Meet GMDSS Requirements, WT Docket No. 19-280, DA 19-995 (rel. Oct. 3, 2019).

² See Amendment of Parts 2, 22 and 25 of the Commission's Rules, Order and Authorization, 4 FCC Rcd 6041 (1989) (original license for MSAT-2); Applications of SatCom Systems, Inc. et al., 14 FCC Rcd 20798 (1999) (original market access authorization for terminals to access MSAT-1); Mobile Satellite Ventures Subsidiary LLC, Application for Authority to Launch and Operate an L-band Mobile-Satellite Service Satellite at 101° W.L., 20 FCC Rcd 9752 (2005) (original license for SkyTerra-1).

³ See Petition for Waiver, Petition for Waiver of Certain Part 80 Rules Concerning Iridium's Provision of GMDSS, WT Docket No. 19-280 (filed Sept. 6, 2019) at 9-10.

Technical Commission for Maritime Services ("RTCM") and Inmarsat, Inc. ("Inmarsat"), and proposes that the Commission apply additional reasonable safeguards.

Specifically, should the Commission grant Iridium's request for a waiver, Ligado agrees with RTCM and Inmarsat that the waiver should be conditioned on compliance with the recently published International Electrochemical Commission ("IEC") standard for ship earth stations operating in the GMDSS, IEC 61097-16.⁴ As RTCM explains, IEC 61097-16 was adopted because the Commission's regulations set forth performance standards naming only Inmarsat as a GMDSS provider,⁵ and accommodates Iridium by referencing the provisions of other standards.⁶ Thus, while Ligado does not object to Iridium's request to waive the regulations in question because they are facially limited to Inmarsat, it is reasonable for the Commission to condition such waiver on a positive obligation to observe the requirements of the recent IEC standard.

Additionally, should the Commission grant Iridium's request for a waiver, the Commission should make clear that the waiver itself does not grant Iridium any different level of spectrum priority than recognized by the Commission or the International Telecommunication Union ("ITU"). The space-to-earth segment of mobile satellite service that Iridium plans to use for GMDSS communications is a secondary allocation at 1613.8-1626.5 in both the International

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⁴ See Comments of RTCM, WT Docket No. 19-280 (filed Oct. 18, 2019) ("RTCM Comments") at 2-3; Comments of Inmarsat, Inc., WT Docket No. 19-280 (filed Oct. 24, 2019) ("Inmarsat Comments") at 6; see also IEC 61097-16, Global Maritime Distress and Safety System (GMDSS) – Part 16: Ship earth stations operating in mobile satellite systems recognized for use in the GMDSS – Operational and performance requirements, methods of testing and required test results (available for purchase from ANSI or IEC at https://www.ansi.org and https://www.iec.ch respectively).

⁵ See 47 C.F.R. § 80.1101.

⁶ RTCM Comments at 2-3.

and U.S. Tables of Allocations.⁷ As Inmarsat points out, "Part 80 is a complex system of interconnected rules intended to provide a framework for reliable safety communication." Moreover, RTCM's petition to revise the Commission's rules is subject to an ongoing rulemaking, and the current review of the international allocation of Iridium's spectrum adds yet another layer of complexity. Depending on the exact wording of any waiver grant, nearby operators may be confused as to the extent of the rights Iridium may be entitled to claim. It is thus reasonable for the Commission to clarify that Iridium equipment may only claim interference protection to the extent that such protection is consistent with the spectrum allocation of the service and accompanying notes under the International and U.S. Tables of Allocations, and to apply this clarification as a condition to grant of the waiver.

Respectfully submitted,

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⁷ See 47 C.F.R. § 2.106.

⁸ Inmarsat Comments at 3.

⁹ See Public Notice, Radio Technical Commission for Maritime Services Petition for Rulemaking to Update Part 80 of the Commission's Rules, 31 FCC Rcd 3554 (2016).

¹⁰ See Agenda and Relevant Resolutions, World Radiocommunication Conference 2019, ITU (rev. Aug. 15, 2017) at 3 (Agenda Item 1.8 for WRC-19), 55-56 (Resolution 359 to take steps to modernize GMDSS).